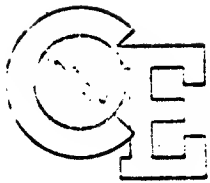


Diagnostic Engineering Publication

1410/7010

Volume 2, 00



Diagnostic Engineering Publication

1410/7010

IBM POUGHKEEPSIE
December 3, 1963

Subject: Diagnostic Program CU06B - Super Scramble

Sequence Number 055
Replaces CU06A

- I. CU06 has been updated to be compatible with the new TC50 program.
- II. System and Two Channel Cards 3 cards 001 - 003

Enclosures: 23 Pages
Card Deck for CARD ONLY SYSTEMS (as punched by UP51)
8 Cards - Card Loader (1-7) and 1 Core Clear
96 Cards No. 001 - 096 Data Cards
1 Card Execute Card

Distribution: X 1410
X 7010
Other

CU06

Page 1

CU06B

SUPER SCRAMBLE 1410-7010

SUPER SCRAMBLE 1410-7010

CONTENTS OF CUO6

| | | |
|------|------------------------------------|---------|
| 00.0 | Test Description | Page 3 |
| 01.0 | Loading Procedure | Page 5 |
| 02.0 | Operating Procedure | Page 6 |
| 03.0 | Operating Hints, Comments | Page 7 |
| 04.0 | Program Stops (Halts) and Restarts | Page 8 |
| 05.0 | Typeouts | Page 9 |
| 06.0 | Flowchart | Page 10 |
| 07.0 | Listings | Page 11 |

SUPER SCRAMBLE 1410-7010

00.0

TEST DESCRIPTION

1. Modifications

This obsoletes CUO6A. Running time five minutes.

2. Description

This program checks the ability of the 1410 or 7010 to perform any two CPU instructions in sequence. The program depends upon internal check circuitry to detect an error. There is no additional data check.

An instruction is selected from each of two tables, and placed in a work area where they are performed in sequence. Data fields are stored before and after and may be displayed. The program selects the next table 1 instruction, moves it to the work area, performs it followed by the previous Table 2 instruction. This sequence continues until Table 1 is exhausted. The next Table 2 instruction is then moved to the work area where it will follow each selected Table 1 instruction. Thus, the program performs all combinations of instructions from the two tables.

Program is complete after six passes and types out "EOJ 6 PASSES."

A fields and B fields before and after and test instructions
can be displayed after any stop by pressing Computer Reset
And Start.

3. Equipment

1. 1402 Card Reader
2. 1411 CPU - 10K Memory
3. 1415 Console

4. Card Deck

Normal 7 card 1410 Loader
Cards 001-101 Program Deck
Card 103 Execute Card

5. EC Level of System

Not Applicable.

01.0 LOADING PROCEDURES

Normal 1410 or 7010 diagnostic load cards and procedure are used with this program.

Two standard tads are used:

1001 Enter 1 for loop

1001 Enter 0 for continue

1002 Not Used

1003 Enter 1 for program repeat
Enter 0 to call next program

1004 Not Used

No other tads are used.

There is no internal tad routine in this program. Do not attempt to alter tads with the Inquiry Request Key.

02.0 OPERATING PROCEDURES

1. Program will type out "CUO6B."
2. On any error. Press Reset. Set Tad 1 (Loc. 1001) to 1 for repeat loop, Computer Reset and press start to display A and B fields and test instructions. Program halts after typeout. Press start to continue. If typeout is not desired, address set to 1825.
3. "EOJ 6 PASSES" will type out at end of program. If program repeat is desired, set 1 in Tad 3 (Loc. 1003) and press Start.

03.0 OPERATING HINTS, COMMENTS

1. Index 4 will contain plus and minus zeroes on alternate passes.
2. Instructions under test are executed in WA (1788-1818).
3. Index Reg. 1 (plus 3000) is address of Table 1 instruction to be tested.
4. Index Reg. 2 (plus 6000) is address of Table 2 instruction to be tested.
5. Index 10 contains the pass number.

04.0 PROGRAM STOPS AND RESTARTS

- | | |
|-------------|---|
| 01788-01818 | 1. Any error stop. Set Tad 1 (Loc. 1001) to one for program loop. Computer Reset and Start if typeout is desired. Address set to 1825 to continue. |
| 08240 | 2. Normal halt and branch after typeout of test instructions. Press Start to continue. |

05.0 TYPEOUTS

1. "CUO6B" - Program identification address set to 08000 to type
 out following:

2. R ABEFOR

R 123 4 5 6 7 8 9 012 *

R BBEBFOR

R 12345

R AAFTER

R 123 4 5 6 7 8 9 012 *

R BAFTER

R 12345

R Instruction

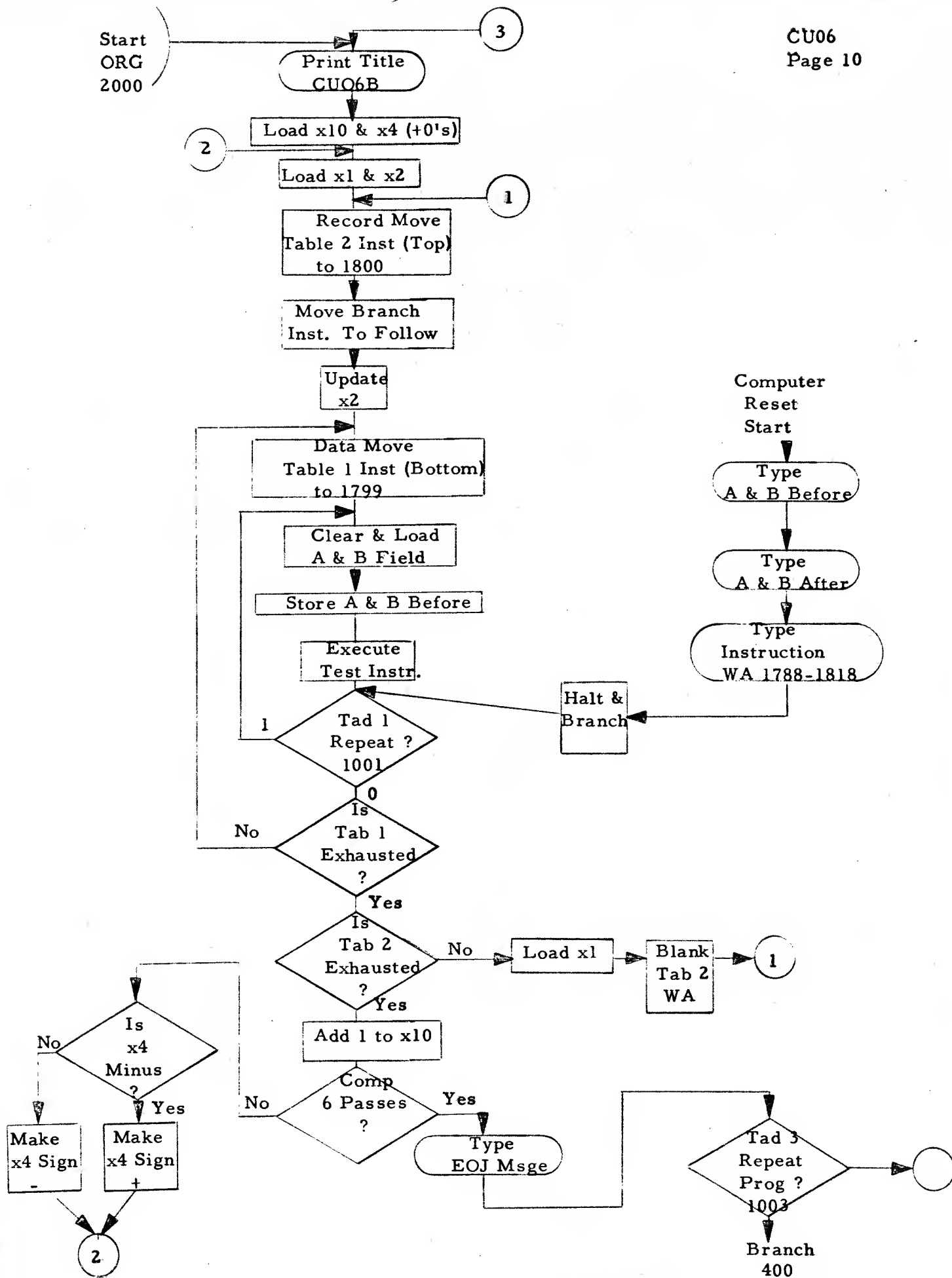
DC02726027R01Y258J01825

Test Instructions

3. "End of JOB 6 PASSES"

Start
ORG
2000

CU06
Page 10



CT ADDR INSTRUCTION

PGLIN LABEL

OPCOD OPERAND

| | | | | |
|--------|-----------------------|-----------------|---------------------------------|--------------------------|
| 1002\$ | * SUPER SCRAMBLE 141C | 701J | | |
| 1003\$ | CTL | 3 | | |
| 1004\$ | CRG | 1001 | | 01001 |
| 1005 | DC | 2 | 1 FOR LOOP | 1 01001 |
| 1006 | DC | 2 | NCT USED | 1 01002 |
| 1007 | DC | 2 | 1 FOR REPEAT PROG | 1 01003 |
| 1008 | CRG | 1245 | | 01245 |
| 1009\$ | DCW | 20550R2 | | 5 01249 |
| 1010 | DC | 2CU0682.6 | | 5 01250 |
| 1011 | CRG | 20C0 | | 02000 |
| 1012 | WCP | TSTNO | | 10 02000 M 210 01250 W |
| 1013 | BCB1 | BEGIN | | 7 02010 R 02000 2 |
| 1014\$ | BAL | GO | | 7 02017 R 02024 M |
| 1015\$ | MLCWA | ZEROES,74 | LOAD INDEX REG 10 | 12 02024 D 07219 00074 X |
| 1016 | MLCWS | 8RRST-6,8 | MOVE WM TO FOLLOW INST | 12 02036 D 02707 00008 7 |
| 1017\$ | MLCWA | 8RRST,7 | MOVE 8R INST TO RESET LOC | 12 02048 D 02713 00007 X |
| 1018\$ | MLCWA | ZEROES,44 | INDEX 4 | 12 02060 D 07219 00044 X |
| 1019 | MLCWA | TABCON,29 | INDEX 1 | 12 02072 D 07224 00029 X |
| 1020 | MLCWA | ZEROES,34 | INDEX 2 | 12 02084 D 07219 00034 X |
| 1021 | MRCWM | BLANK,1800 | CLEAR WA | 12 02096 D 02843 01800 M |
| 1022 | MRCW | 6CC0EX2,1800 | REC MOVE TAB2 INST TO WA | 12 02108 D 060.0 01800 M |
| 1023 | MRCW | | | 1 02120 D |
| 1024\$ | SAR | 34 | | 7 02121 G 00034 A |
| 1025 | SBR | F85 | MOVE BRANCH TO FOLLOW TAB2 INST | 7 02128 G 02163 B |
| 1026 | A | SIX,F85 | | 11 02135 A 02867 02163 |
| 1027\$ | MLCS | R,F | | 12 02146 D 06284 02158 3 |
| 1028 | SW | O | | 6 02158 , 00000 |
| 1029\$ | SBR | *E11 | | 7 02164 G 02181 B |
| 1030 | MLCWA | BRANCH,0 | | 12 02171 D 02706 00000 X |
| 1031 | S | 006001,34 | | 11 02183 S 08296 00034 |
| 1032 | MLCWA | 30C0EX1,1799 | DATA MOVE TAB1 INST TO WA | 12 02194 D 03040 01799 X |
| 1033 | SAR | 29 | | 7 02206 G 00029 A |
| 1034 | SBR | 8E29 | | 7 02213 G 02295 B |
| 1035 | A | ONE,8E29 | | 11 02220 A 02873 02295 |
| 1036 | S | 03000,29 | | 11 02231 S 08301 00029 |
| 1037 | MRCWG | ALCAD,AFIELD-19 | CLEAR AND LOAD AFIELD | 12 02242 D 02756 02714 L |

SUPER SCRAMBLE 1410

| PGLIN | LABEL | OPCOD | OPERAND | CT | ADDRS | INSTRUCTION |
|--------|--------|-------|---------------------------------------|----|-------|-------------------|
| 1038 | | MRCWG | BLCAD,8FIELD-19 CLEAR AND LOAD 8FIELD | 12 | 02254 | D 02777 02735 L D |
| 1039 | B | MRCWG | AFIELD-19,ABEFOR-19 STORE A 8BEFORE | 12 | 02266 | D 02714 02798 L D |
| 1040 | | MRCWG | 8FIELD-19,8BEFOR-19 STORE 8BEFORE | 12 | 02278 | D 02735 02819 L D |
| 1041 | | 8 | 0 | 7 | 02290 | J 00000 |
| 1042\$ | | NOP | | 1 | 02297 | N |
| 1043 | | ORG | 1825 | | 01825 | |
| 1044 | | BCE | AA,1C01,1 TAD 1 CN LOOP | 12 | 01825 | 8 02242 01001 1 |
| 1045 | | C | 8C0C10,29 IS TABLE 1 EXHAUSTED | 11 | 01837 | C 08306 00029 |
| 1046 | | BH | 88 | 7 | 01848 | J 02194 U |
| 1047 | | C | 8C1185,34 IS TABLE 2 EXHAUSTED | 11 | 01855 | C 08311 00034 |
| 1048 | | BL | UPDATE | 7 | 01866 | J 01952 T |
| 1049 | | A | ONE,74 TABLE 2 IS EXHAUSTED | 11 | 01873 | A 02873 00074 |
| 1050 | | C | 8C0C005,74 | 11 | 01884 | C 08316 00074 |
| 1051 | | 8H | EOJ | 7 | 01895 | J 02300 U |
| 1052 | | BZN | PLUS,44,K | 12 | 01902 | V 01933 00044 K |
| 1053 | | MLZS | NFG,44 | 12 | 01914 | D 02841 00044 2 |
| 1054 | | 8 | A | 7 | 01926 | J 02072 |
| 1055 | PLUS | MLZS | POS,44 | 12 | 01933 | D 02840 00044 2 |
| 1056 | | B | A | 7 | 01945 | J 02072 |
| 1057 | UPDATE | MLCWA | TARCON,29 LOAD INDEX 1 | 12 | 01952 | D 07224 00029 X |
| 1058 | | B | C | 7 | 01964 | J 02096 |
| 1059 | | NOP | | 1 | 01971 | N |
| 1060 | | ORG | 23C0 | | 02300 | |
| 1061 | | WCP | MSGE | 10 | 02300 | M 8T0 07194 M |
| 1062 | EOJ | 8A1 | *81 | 7 | 02310 | R 02317 M |
| 1063 | | BCE | BEGIN,1C03,1 TAD 3 ON REPEAT | 12 | 02317 | B 02000 01003 1 |
| 1064 | | 8 | 40C | 7 | 02329 | J 00400 |
| 1065 | | NCP | | 1 | 02336 | N |
| 1066 | | ORG | 30C0 | | 03000 | |
| 1067 | | BEF1 | 18C08X4 | 7 | 03000 | R 01Y00 8 |
| 1068\$ | | BEF1 | 18C0 | 7 | 03007 | R 01800 8 |
| 1069\$ | | A | AFIELD8X4,8FIELD8X4 TABLE 1 | 11 | 03014 | A 02X33 02X54 |
| 1070\$ | | A | AFIELD,8FIELD | 11 | 03025 | A 02733 02754 |
| 1071\$ | | S | AFIELD8X4,8FIELD8X4 | 11 | 03036 | S 02X33 02X54 |
| 1072\$ | | S | AFIELD,8FIELD | 11 | 03047 | S 02733 02754 |
| 1073 | | ZA | AFIELD8X4,8FIELD8X4 | 11 | 03058 | M 02X33 02X54 |

SUPER SCRAMBLE 1410

| PGLIN | LABEL | OPCODE | OPERAND | CT | ADDRS | INSTRUCTION |
|--------|-------|--------|-------------------------|----|-------|-----------------|
| 1074\$ | | ZA | AFIELD,8FIELD | 11 | 03069 | Q M 02733 02754 |
| 1075 | | ZS | AFIELDX4,8FIELDX4 | 11 | 03080 | : 02X33 02X54 |
| 1076\$ | | ZS | AFIELD,8FIELD | 11 | 03091 | : 02733 02754 |
| 1077 | | M | AFIELD-18X4,8FIELD-13X4 | 11 | 03102 | @ 02X15 02X41 |
| 1078\$ | | M | AFIELD-18,8FIELD-13 | 11 | 03113 | @ 02715 02741 |
| 1079 | | D | AFIELD-18X4,8FIELD-15X4 | 11 | 03124 | @ 02X15 02X39 |
| 1080\$ | | D | AFIELD-18,8FIELD-15 | 11 | 03135 | @ 02715 02739 |
| 1081 | | B | 18C0EX4 | 7 | 03146 | J 01Y00 |
| 1082\$ | | B | 18C0 | 7 | 03153 | J 01800 |
| 1083 | | BU | 18C0EX4 | 7 | 03160 | J 01Y00 / |
| 1084\$ | | BU | 18C0 | 7 | 03167 | J 01800 / |
| 1085 | | BE | 18C0EX4 | 7 | 03174 | J 01Y00 S |
| 1086\$ | | BE | 18C0 | 7 | 03181 | J 01800 S |
| 1087 | | BL | 18C0EX4 | 7 | 03188 | J 01Y00 T |
| 1088\$ | | BL | 18C0 | 7 | 03195 | J 01800 T |
| 1089 | | BT | 18C0EX4 | 7 | 03202 | J 01Y00 U |
| 1090\$ | | BT | 18C0 | 7 | 03209 | J 01800 U |
| 1091 | | BZ | 18C0EX4 | 7 | 03216 | J 01Y00 V |
| 1092\$ | | BZ | 18C0 | 7 | 03223 | J 01800 V |
| 1093 | | BCV | 18C0EX4 | 7 | 03230 | J 01Y00 W |
| 1094\$ | | BCV | 18C0 | 7 | 03237 | J 01800 W |
| 1095 | | BAV | 18C0EX4 | 7 | 03244 | J 01Y00 Z |
| 1096\$ | | BAV | 18C0 | 7 | 03251 | J 01800 Z |
| 1097 | | BNQ | 18C0EX4 | 7 | 03258 | J 01Y00 Q |
| 1098\$ | | BNQ | 18C0 | 7 | 03265 | J 01800 Q |
| 1099 | | BNRI | 18C0EX4 | 7 | 03272 | R 01Y00 I |
| 1100\$ | | BNRI | 18C0 | 7 | 03279 | R 01800 I |
| 1101 | | BCBI | 18C0EX4 | 7 | 03286 | R 01Y00 2 |
| 1102\$ | | BCBI | 18C0 | 7 | 03293 | R 01800 2 |
| 1103 | | BERI | 18C0EX4 | 7 | 03300 | R 01Y00 4 |
| 1104\$ | | BERI | 18C0 | 7 | 03307 | R 01800 4 |
| 1105 | | BEFI | 18C0EX4 | 7 | 03314 | R 01Y00 8 |
| 1106\$ | | BEFI | 18C0 | 7 | 03321 | R 01800 8 |
| 1107 | | BNTI | 18C0EX4 | 7 | 03328 | R 01Y00 S |
| 1108\$ | | BNTI | 18C0 | 7 | 03335 | R 01800 S |
| 1109 | | BWLI | 18C0EX4 | 7 | 03342 | R 01Y00 - |

TABLE 1 CONT

| PGLIN | LABEL | OPCODE | OPERAND | CT | ADDRS | INSTRUCTION |
|--------|-------|--------|--------------------|----|-------|-----------------|
| 1110\$ | | BWL1 | 18C0 | 7 | 03349 | R 01800 - |
| 1111 | | BA1 | 18C0EX4 | 7 | 03356 | R 01Y00 M |
| 1112\$ | | BA1 | 18C0 | 7 | 03363 | R 01800 M |
| 1113 | | BCE | 18C0EX4,8FIELDX4,A | 12 | 03370 | B 01Y00 02X54 A |
| 1114\$ | | BCE | 18C0,BFIELD,A | 12 | 03382 | B 01800 02754 A |
| 1115 | | B8E | 18C0EX4,8FIELDX4,B | 12 | 03394 | M 01Y00 02X54 B |
| 1116\$ | | B8E | 18C0,BFIELD,B | 12 | 03406 | M 01800 02754 B |
| 1117 | | BW | 18C0EX4,8FIELDX4 | 12 | 03418 | V 01Y00 02X54 1 |
| 1118\$ | | BW | 18C0,BFIELD | 12 | 03430 | V 01800 02754 1 |
| 1119 | | BZN | 18C0EX4,8FIELDX4 | 12 | 03442 | V 01Y00 02X54 2 |
| 1120\$ | | BZN | 18C0,BFIELD | 12 | 03454 | V 01800 02754 2 |
| 1121 | | BWZ | 18C0EX4,8FIELDX4 | 12 | 03466 | V 01Y00 02X54 3 |
| 1122\$ | | BWZ | 18C0,BFIELD | 12 | 03478 | V 01800 02754 3 |
| 1123 | | C | AFIELDX4,8FIELDX4 | 11 | 03490 | C 02X33 02X54 |
| 1124\$ | | C | AFIELD,8FIELD | 11 | 03501 | C 02733 02754 |
| 1125 | | SAR | BFIELD | 7 | 03512 | G 02754 A |
| 1126 | | S8R | BFIELD | 7 | 03519 | G 02754 B |
| 1127 | | SAR | BFIELD | 7 | 03526 | G 02754 A |
| 1128 | | SBR | BFIELD | 7 | 03533 | G 02754 B |
| 1129 | | SW | SPECX4 | 6 | 03540 | , 02Y42 |
| 1130\$ | | SW | SPEC | 6 | 03546 | , 02842 |
| 1131 | | CW | SPECX4 | 6 | 03552 | □ 02Y42 |
| 1132\$ | | CW | SPEC | 6 | 03558 | □ 02842 |
| 1133 | | CS | 1750EX4 | 6 | 03564 | / 01X50 |
| 1134\$ | | CS | 1750 | 6 | 03570 | / 01750 |
| 1135 | | CS | 18C0EX4,1750EX4 | 11 | 03576 | / 01Y00 01X50 |
| 1136\$ | | CS | 18C0,1750 | 11 | 03587 | / 01800 01750 |
| 1137\$ | | NOP | | 1 | 03598 | N |
| 1138 | | SCNLS | AFIELDX4,8FIELDX4 | 12 | 03599 | D 02X33 02X54 |
| 1139\$ | | SCNLS | AFIELD,8FIELD | 12 | 03611 | D 02733 02754 |
| 1140 | | MLNS | AFIELDX4,8FIELDX4 | 12 | 03623 | D 02X33 02X54 1 |
| 1141\$ | | MLNS | AFIELD,8FIELD | 12 | 03635 | D 02733 02754 1 |
| 1142 | | MLCS | AFIELD,8FIELD | 12 | 03647 | D 02733 02754 3 |
| 1143\$ | | MLCS | AFIELDX4,8FIELDX4 | 12 | 03659 | D 02X33 02X54 3 |
| 1144\$ | | MLZS | AFIELD,8FIELD | 12 | 03671 | D 02733 02754 2 |
| 1145\$ | | MLZS | AFIELDX4,8FIELDX4 | 12 | 03683 | D 02X33 02X54 2 |

TABLE CONTINUED

| PGLIN | LABEL | OPCOD | OPERAND | CT | ADDRS | INSTRUCTION |
|--------|-------|-------|---------------------|----|-------|-----------------|
| 1146 | | MLWS | AFIELD&X4,8FIELD&X4 | 12 | 03695 | D 02X33 02X54 4 |
| 1147\$ | | MLWS | AFIELD,8FIELD | 12 | 03707 | D 02733 02754 4 |
| 1148 | | MLNWS | AFIELD&X4,8FIELD&X4 | 12 | 03719 | D 02X33 02X54 5 |
| 1149\$ | | MLNWS | AFIELD,8FIELD | 12 | 03731 | D 02733 02754 5 |
| 1150 | | MLZWS | AFIELD&X4,8FIELD&X4 | 12 | 03743 | D 02X33 02X54 6 |
| 1151\$ | | MLZWS | AFIELD,8FIELD | 12 | 03755 | D 02733 02754 6 |
| 1152 | | MLCWS | AFIELD&X4,8FIELD&X4 | 12 | 03767 | D 02X33 02X54 7 |
| 1153\$ | | MLCWS | AFIELD,8FIELD | 12 | 03779 | D 02733 02754 7 |
| 1154 | | SCNLA | AFIELD&X4,8FIELD&X4 | 12 | 03791 | D 02X33 02X54 8 |
| 1155\$ | | SCNLA | AFIELD,8FIELD | 12 | 03803 | D 02733 02754 8 |
| 1156 | | MLNA | AFIELD&X4,8FIELD&X4 | 12 | 03815 | D 02X33 02X54 / |
| 1157\$ | | MLNA | AFIELD,8FIELD | 12 | 03827 | D 02733 02754 / |
| 1158 | | MLZA | AFIELD&X4,8FIELD&X4 | 12 | 03839 | D 02X33 02X54 S |
| 1159\$ | | MLZA | AFIELD,8FIELD | 12 | 03851 | D 02733 02754 S |
| 1160 | | MLCA | AFIELD&X4,8FIELD&X4 | 12 | 03863 | D 02X33 02X54 T |
| 1161\$ | | MLCA | AFIELD,8FIELD | 12 | 03875 | D 02733 02754 T |
| 1162 | | MLWA | AFIELD&X4,8FIELD&X4 | 12 | 03887 | D 02X33 02X54 U |
| 1163\$ | | MLWA | AFIELD,8FIELD | 12 | 03899 | D 02733 02754 U |
| 1164 | | MLNWA | AFIELD&X4,8FIELD&X4 | 12 | 03911 | D 02X33 02X54 V |
| 1165\$ | | MLNWA | AFIELD,8FIELD | 12 | 03923 | D 02733 02754 V |
| 1166 | | MLZWA | AFIELD&X4,8FIELD&X4 | 12 | 03935 | D 02X33 02X54 W |
| 1167\$ | | MLZWA | AFIELD,8FIELD | 12 | 03947 | D 02733 02754 W |
| 1168 | | MLCWA | AFIELD&X4,8FIELD&X4 | 12 | 03959 | D 02X33 02X54 X |
| 1169\$ | | MLCWA | AFIELD,8FIELD | 12 | 03971 | D 02733 02754 X |
| 1170 | | SCNLB | AFIELD&X4,8FIELD&X4 | 12 | 03983 | D 02X33 02X54 - |
| 1171\$ | | SCNLB | AFIELD,8FIELD | 12 | 03995 | D 02733 02754 - |
| 1172 | | MLNB | AFIELD&X4,8FIELD&X4 | 12 | 04007 | D 02X33 02X54 J |
| 1173\$ | | MLNB | AFIELD,8FIELD | 12 | 04019 | D 02733 02754 J |
| 1174 | | MLZB | AFIELD&X4,8FIELD&X4 | 12 | 04031 | D 02X33 02X54 K |
| 1175\$ | | MLZB | AFIELD,8FIELD | 12 | 04043 | D 02733 02754 K |
| 1176 | | MLCB | AFIELD&X4,8FIELD&X4 | 12 | 04055 | D 02X33 02X54 L |
| 1177\$ | | MLCB | AFIELD,8FIELD | 12 | 04067 | D 02733 02754 L |
| 1178 | | MLWB | AFIELD&X4,8FIELD&X4 | 12 | 04079 | D 02X33 02X54 M |
| 1179\$ | | MLWB | AFIELD,8FIELD | 12 | 04091 | D 02733 02754 M |
| 1180 | | MLNWB | AFIELD&X4,8FIELD&X4 | 12 | 04103 | D 02X33 02X54 N |
| 1181\$ | | MLNWB | AFIELD,8FIELD | 12 | 04115 | D 02733 02754 N |

PGLIN LABEL SUPER SCRAMBLE 141C
OPCOO OPERAND

| PGLIN | LABEL | OPCOO | OPERAND | CT | ADOKS | INSTRUCTION |
|--------|-------|-------|-------------------------|----|-------|-----------------|
| 1182 | | MLCWB | AFIELDX4,8FIELDX4 | 12 | 04127 | D 02X33 02X54 P |
| 1183\$ | | MLCWB | AFIELD,8FIELD | 12 | 04139 | D 02733 02754 P |
| 1184\$ | | MLZWB | AFIELDX4,8FIELDX4 | 12 | 04151 | D 02X33 02X54 O |
| 1185\$ | | MLZWB | AFIELD,8FIELD | 12 | 04163 | D 02733 02754 O |
| 1186 | | SCNL | AFIELDX4,8FIELDX4 | 12 | 04175 | D 02X33 02X54 E |
| 1187\$ | | SCNL | AFIELD,8FIELD | 12 | 04187 | D 02733 02754 E |
| 1188 | | MLN | AFIELDX4,8FIELDX4 | 12 | 04199 | D 02X33 02X54 A |
| 1189\$ | | MLN | AFIELD,8FIELD | 12 | 04211 | D 02733 02754 A |
| 1190 | | MLZ | AFIELDX4,8FIELDX4 | 12 | 04223 | D 02X33 02X54 B |
| 1191\$ | | MLZ | AFIELD,8FIELD | 12 | 04235 | D 02733 02754 B |
| 1192 | | MLC | AFIELDX4,8FIELDX4 | 12 | 04247 | D 02X33 02X54 C |
| 1193\$ | | MLC | AFIELD,8FIELD | 12 | 04259 | D 02733 02754 C |
| 1194 | | MLW | AFIELDX4,8FIELDX4 | 12 | 04271 | D 02X33 02X54 D |
| 1195\$ | | MLW | AFIELD,8FIELD | 12 | 04283 | D 02733 02754 D |
| 1196 | | MLNW | AFIELDX4,8FIELDX4 | 12 | 04295 | D 02X33 02X54 E |
| 1197\$ | | MLNW | AFIELD,8FIELD | 12 | 04307 | D 02733 02754 E |
| 1198 | | MLZW | AFIELDX4,8FIELDX4 | 12 | 04319 | D 02X33 02X54 F |
| 1199\$ | | MLZW | AFIELD,8FIELD | 12 | 04331 | D 02733 02754 F |
| 1200 | | MLCW | AFIELDX4,8FIELDX4 | 12 | 04343 | D 02X33 02X54 G |
| 1201\$ | | MLCW | AFIELD,8FIELD | 12 | 04355 | D 02733 02754 G |
| 1202 | | SCNR | AFIELD-19X4,8FIELD-19X4 | 12 | 04367 | D 02X14 02X35 B |
| 1203\$ | | SCNR | AFIELD-19,8FIELD-19 | 12 | 04379 | D 02714 02735 B |
| 1204 | | MRN | AFIELD-19X4,8FIELD-19X4 | 12 | 04391 | D 02X14 02X35 9 |
| 1205\$ | | MRN | AFIELD-19,8FIELD-19 | 12 | 04403 | D 02714 02735 9 |
| 1206 | | MRZ | AFIELD-19X4,8FIELD-19X4 | 12 | 04415 | D 02X14 02X35 D |
| 1207\$ | | MRZ | AFIELD-19,8FIELD-19 | 12 | 04427 | D 02714 02735 O |
| 1208 | | MRC | AFIELD-19X4,8FIELD-19X4 | 12 | 04439 | D 02X14 02X35 # |
| 1209\$ | | MRC | AFIELD-19,8FIELD-19 | 12 | 04451 | D 02714 02735 # |
| 1210 | | MRW | AFIELD-19X4,8FIELD-19X4 | 12 | 04463 | D 02X14 02X35 a |
| 1211\$ | | MRW | AFIELD-19,8FIELD-19 | 12 | 04475 | D 02714 02735 a |
| 1212 | | MRNW | AFIELD-19X4,8FIELD-19X4 | 12 | 04487 | D 02X14 02X35 . |
| 1213\$ | | MRNW | AFIELD-19,8FIELD-19 | 12 | 04499 | D 02714 02735 . |
| 1214 | | MRZW | AFIELD-19X4,8FIELD-19X4 | 12 | 04511 | D 02X14 02X35 f |
| 1215\$ | | MRZW | AFIELD-19,8FIELD-19 | 12 | 04523 | D 02714 02735 f |
| 1216 | | MRCW | AFIELD-19X4,8FIELD-19X4 | 12 | 04535 | D 02X14 02X35 M |
| 1217\$ | | MRCW | AFIELD-19,8FIELD-19 | 12 | 04547 | D 02714 02735 M |

TABLE1 CONT

SUPER SCRAMBLE 1410

| PGLIN | LABEL | OPCOD | OPERANC | CT | ADDRS | INSTRUCTION |
|--------|-------|-------|---------------------------|----|-------|------------------|
| 1218 | | SCNRR | AFIELD-19EX4,8FIELD-19EX4 | 12 | 04559 | D 02X14 02X35 Y |
| 1219\$ | | SCNRR | AFIELD-19,8FIELD-19 | 12 | 04571 | D 02714 02735 Y |
| 1220 | | MRNR | AFIELD-19EX4,8FIELD-19EX4 | 12 | 04583 | D 02X14 02X35 Z |
| 1221\$ | | MRNR | AFIELD-19,8FIELD-19 | 12 | 04595 | D 02714 02735 Z |
| 1222 | | MRZR | AFIELD-19EX4,8FIELD-19EX4 | 12 | 04607 | D 02X14 02X35 # |
| 1223\$ | | MRZR | AFIELD-19,8FIELD-19 | 12 | 04619 | D 02714 02735 # |
| 1224 | | MRCR | AFIELD-19EX4,8FIELD-19EX4 | 12 | 04631 | D 02X14 02X35 , |
| 1225\$ | | MRCR | AFIELD-19,8FIELD-19 | 12 | 04643 | D 02714 02735 , |
| 1226 | | MRWR | AFIELD-19EX4,8FIELD-19EX4 | 12 | 04655 | D 02X14 02X35 * |
| 1227\$ | | MRWR | AFIELD-19,8FIELD-19 | 12 | 04667 | D 02714 02735 * |
| 1228 | | MRNWR | AFIELD-19EX4,8FIELD-19EX4 | 12 | 04679 | D 02X14 02X35 S |
| 1229\$ | | MRNWR | AFIELD-19,8FIELD-19 | 12 | 04691 | D 02714 02735 S |
| 1230 | | MRZWR | AFIELD-19EX4,8FIELD-19EX4 | 12 | 04703 | D 02X14 02X35 B |
| 1231\$ | | MRZWR | AFIELD-19,8FIELD-19 | 12 | 04715 | D 02714 02735 B |
| 1232 | | MRCWR | AFIELD-19EX4,8FIELD-19EX4 | 12 | 04727 | D 02X14 02X35 S |
| 1233\$ | | MRCWR | AFIELD-19,8FIELD-19 | 12 | 04739 | D 02714 02735 S |
| 1234 | | SCNRG | AFIELD-19EX4,8FIELD-19EX4 | 12 | 04751 | D 02X14 02X35 Q |
| 1235\$ | | SCNRG | AFIELD-19,8FIELD-19 | 12 | 04763 | D 02714 02735 Q |
| 1236 | | MRNG | AFIELD-19EX4,8FIELD-19EX4 | 12 | 04775 | D 02X14 02X35 R |
| 1237\$ | | MRNG | AFIELD-19,8FIELD-19 | 12 | 04787 | D 02714 02735 R |
| 1238 | | MRZG | AFIELD-19EX4,8FIELD-19EX4 | 12 | 04799 | D 02X14 02X35 ? |
| 1239\$ | | MRZG | AFIELD-19,8FIELD-19 | 12 | 04811 | D 02714 02735 - |
| 1240 | | MRCG | AFIELD-19EX4,8FIELD-19EX4 | 12 | 04823 | D 02X14 02X35 \$ |
| 1241\$ | | MRCG | AFIELD-19,8FIELD-19 | 12 | 04835 | D 02714 02735 \$ |
| 1242 | | MRWG | AFIELD-19EX4,8FIELD-19EX4 | 12 | 04847 | D 02X14 02X35 * |
| 1243\$ | | MRWG | AFIELD-19,8FIELD-19 | 12 | 04859 | D 02714 02735 * |
| 1244 | | MRNWG | AFIELD-19EX4,8FIELD-19EX4 | 12 | 04871 | D 02X14 02X35 R |
| 1245\$ | | MRNWG | AFIELD-19,8FIELD-19 | 12 | 04883 | D 02714 02735 R |
| 1246 | | PRZG | AFIELD-19EX4,8FIELD-19EX4 | 12 | 04895 | D 02X14 02X35 . |
| 1247\$ | | PRZG | AFIELD-19,8FIELD-19 | 12 | 04907 | D 02714 02735 . |
| 1248 | | MRCWG | AFIELD-19EX4,8FIELD-19EX4 | 12 | 04919 | D 02X14 02X35 L |
| 1249\$ | | MRCWG | AFIELD-19,8FIELD-19 | 12 | 04931 | D 02714 02735 L |
| 1250 | | SCNRH | AFIELD-19EX4,8FIELD-19EX4 | 12 | 04943 | D 02X14 02X35 H |
| 1251\$ | | SCNRH | AFIELD-19,8FIELD-19 | 12 | 04955 | D 02714 02735 H |
| 1252 | | MRNH | AFIELD-19EX4,8FIELD-19EX4 | 12 | 04967 | D 02X14 02X35 I |
| 1253\$ | | MRNH | AFIELD-19,8FIELD-19 | 12 | 04979 | D 02714 02735 I |

TABLE 1 CONT

SUPER SCRAMBLE 141C

| PGLIN | LABEL | OPCOD | OPERAND | CT | ADDRS | INSTRUCTION |
|--------|-------|-------|-------------------------------|----|-------|-----------------|
| 1254 | | MRZM | AFIELD-19EX4,8FIELD-19EX4 | 12 | 04991 | D 02X14 02X35 Q |
| 1255\$ | | MRZM | AFIELD-19,8FIELD-19 | 12 | 05003 | D 02714 02735 H |
| 1256 | | MRCM | AFIELD-19EX4,8FIELD-19EX4 | 12 | 05015 | D 02X14 02X35 . |
| 1257\$ | | MRCM | AFIELD-19,8FIELD-19 | 12 | 05027 | D 02714 02735 . |
| 1258 | | MRWM | AFIELD-19EX4,8FIELD-19EX4 | 12 | 05039 | D 02X14 02X35 a |
| 1259\$ | | MRWM | AFIELD-19,8FIELD-19 | 12 | 05051 | D 02714 02735 a |
| 1260 | | MRNWM | AFIELD-19EX4,8FIELD-19EX4 | 12 | 05063 | D 02X14 02X35 L |
| 1261\$ | | MRNWM | AFIELD-19,8FIELD-19 | 12 | 05075 | D 02714 02735 L |
| 1262 | | MRZWM | AFIELD-19EX4,8FIELD-19EX4 | 12 | 05087 | D 02X14 02X35 T |
| 1263\$ | | MRZWM | AFIELD-19,8FIELD-19 | 12 | 05099 | D 02714 02735 T |
| 1264 | | MRCWM | AFIELD-19EX4,8FIELD-19EX4 | 12 | 05111 | D 02X14 02X35 G |
| 1265\$ | | MRCWM | AFIELD-19,8FIELD-19 | 12 | 05123 | D 02714 02735 G |
| 1266 | | LL | AFIELD0EX4,8FIELD-1EX4 | 12 | 05135 | T 02X33 02X53 1 |
| 1267\$ | | LL | AFIELD,8FIELD-1 | 12 | 05147 | T 02733 02753 1 |
| 1268 | | LE | AFIELD0EX4,8FIELD-1EX4 | 12 | 05159 | T 02X33 02X53 2 |
| 1269\$ | | LE | AFIELD,8FIELD-1 | 12 | 05171 | T 02733 02753 2 |
| 1270 | | LLE | AFIELD0EX4,8FIELD-1EX4 | 12 | 05183 | T 02X33 02X53 3 |
| 1271\$ | | LLE | AFIELD,8FIELD-1 | 12 | 05195 | T 02733 02753 3 |
| 1272 | | LF | AFIELD0EX4,8FIELD-1EX4 | 12 | 05207 | T 02X33 02X53 4 |
| 1273\$ | | LF | AFIELD,8FIELD-1 | 12 | 05219 | T 02733 02753 4 |
| 1274 | | LLH | AFIELD0EX4,8FIELD-1EX4 | 12 | 05231 | T 02X33 02X53 5 |
| 1275\$ | | LLH | AFIELD,8FIELD-1 | 12 | 05243 | T 02733 02753 5 |
| 1276 | | LEH | AFIELD0EX4,8FIELD-1EX4 | 12 | 05255 | T 02X33 02X53 6 |
| 1277\$ | | LEH | AFIELD,8FIELD-1 | 12 | 05267 | T 02733 02753 6 |
| 1278 | | MCS | AFIELD0EX4,8FIELD0EX4 | 11 | 05279 | Z 02X33 02X54 |
| 1279\$ | | MCS | AFIELD,8FIELD | 11 | 05290 | Z 02733 02754 |
| 1280 | | MCE | AFIELD0EX4,8FIELD0EX4 | 11 | 05301 | E 02X33 02X54 |
| 1281\$ | | MCE | AFIELD,8FIELD | 11 | 05312 | E 02733 02754 |
| 1282 | | BC9 | 18C0EX4 | 7 | 05323 | J 01Y00 9 |
| 1283 | | ORG | 60C0 | | 06000 | |
| 1284 | | A | AFIELD0EX4,8FIELD0EX4 TABLE 2 | 11 | 06000 | A 02X33 02X54 |
| 1285 | | S | AFIELD0EX4,8FIELD0EX4 | 11 | 06011 | S 02X33 02X54 |
| 1286 | | ZA | AFIELD0EX4,8FIELD0EX4 | 11 | 06022 | H 02X33 02X54 |
| 1287 | | ZS | AFIELD0EX4,8FIELD0EX4 | 11 | 06033 | . 02X33 02X54 |
| 1288 | | M | AFIELD-18EX4,8FIELD-13EX4 | 11 | 06044 | a 02X15 02X41 |
| 1289 | | D | AFIELD-18EX4,8FIELD-15EX4 | 11 | 06055 | x 02X15 02X39 |

| PGLIN | LABEL | SUPER SCRAMBLE 1410 | CU06 | CT | ADDRS | INSTRUCTION |
|--------|-------|---------------------------|------|----|-------|-----------------|
| 1290 | | 8 1825EX4 | | 7 | 06066 | J 01Y25 |
| 1291 | | BU 1825EX4 | | 7 | 06073 | J 01Y25 / |
| 1292 | | BE 1825EX4 | | 7 | 06080 | J 01Y25 S |
| 1293 | | BL 1825EX4 | | 7 | 06087 | J 01Y25 T |
| 1294 | | BP 1825EX4 | | 7 | 06094 | J 01Y25 U |
| 1295 | | BZ 1825EX4 | | 7 | 06101 | J 01Y25 V |
| 1296 | | BCV 1825EX4 | | 7 | 06108 | J 01Y25 W |
| 1297 | | BAV 1825EX4 | | 7 | 06115 | J 01Y25 Z |
| 1298 | | BNQ 1825EX4 | | 7 | 06122 | J 01Y25 Q |
| 1299 | | BNR1 1825EX4 | | 7 | 06129 | R 01Y25 1 |
| 1300 | | BC81 1825EX4 | | 7 | 06136 | R 01Y25 2 |
| 1301 | | BER1 1825EX4 | | 7 | 06143 | R 01Y25 4 |
| 1302 | | BEF1 1825EX4 | | 7 | 06150 | R 01Y25 8 |
| 1303 | | 8NT1 1825EX4 | | 7 | 06157 | R 01Y25 B |
| 1304 | | 8WL1 1825EX4 | | 7 | 06164 | R 01Y25 - |
| 1305 | | 8A1 1825EX4 | | 7 | 06171 | R 01Y25 M |
| 1306 | | 8EF1 1825EX4 | | 7 | 06178 | R 01Y25 8 |
| 1307 | | BCE 1825EX4,8F1ELDEX4,A | | 12 | 06185 | B 01Y25 02X54 A |
| 1308 | | 8BE 1825EX4,8F1ELDEX4,8 | | 12 | 06197 | W 01Y25 02X54 8 |
| 1309 | | BW 1825EX4,8F1ELDEX4 | | 12 | 06209 | V 01Y25 02X54 1 |
| 1310 | | BZN 1825EX4,8F1ELDEX4 | | 12 | 06221 | V 01Y25 02X54 2 |
| 1311\$ | | BWZ 1825EX4,8F1ELDEX4 | | 12 | 06233 | V 01Y25 02X54 3 |
| 1312 | | C AF1ELDEX4,8F1ELDEX4 | | 11 | 06245 | C 02X33 02X54 |
| 1313 | | SAR BF1ELD | | 7 | 06256 | G 02754 A |
| 1314 | | SBR BF1ELD | | 7 | 06263 | G 02754 B |
| 1315 | | SAR BF1ELD | | 7 | 06270 | G 02754 A |
| 1316 | | SBR BF1ELD | | 7 | 06277 | G 02754 B |
| 1317 | R | SW SPEC&X4 | | 6 | 06284 | , 02Y42 |
| 1318 | | CW SPEC&X4 | | 6 | 06290 | □ 02Y42 |
| 1319 | | CS 1750EX4 | | 6 | 06296 | / 01X50 |
| 1320 | | CS 1825EX4,1750EX4 | | 11 | 06302 | / 01Y25 01X50 |
| 1321 | | SCNLS AF1ELDEX4,8F1ELDEX4 | | 12 | 06313 | D 02X33 02X54 |
| 1322 | | MLNS AF1ELDEX4,8F1ELDEX4 | | 12 | 06325 | D 02X33 02X54 1 |
| 1323\$ | | MLZS AF1ELDEX4,8F1ELDEX4 | | 12 | 06337 | D 02X33 02X54 2 |
| 1324 | | MLCS AF1ELDEX4,8F1ELDEX4 | | 12 | 06349 | D 02X33 02X54 3 |
| 1325 | | MLWS AF1ELDEX4,8F1ELDEX4 | | 12 | 06361 | D 02X33 02X54 4 |

TABLE 2 CONT

| PGLIN | LABEL | OPCODE | OPERAND | CT | ADDRS | INSTRUCTION |
|--------|-------|--------|---------------------------|----|-------|-----------------|
| 1326 | | MLNWS | AFIELDX4,8FIELDEX4 | 12 | 06373 | D 02X33 02X54 5 |
| 1327 | | MLZWS | AFIELDX4,8FIELDEX4 | 12 | 06385 | D 02X33 02X54 6 |
| 1328 | | MLZWS | AFIELDX4,8FIELDEX4 | 12 | 06397 | D 02X33 02X54 6 |
| 1329 | | MLCWS | AFIELDX4,8FIELDEX4 | 12 | 06409 | D 02X33 02X54 7 |
| 1330 | | SCNLA | AFIELDX4,8FIELDEX4 | 12 | 06421 | D 02X33 02X54 8 |
| 1331 | | MLNA | AFIELDX4,8FIELDEX4 | 12 | 06433 | D 02X33 02X54 7 |
| 1332 | | MLZA | AFIELDX4,8FIELDEX4 | 12 | 06445 | D 02X33 02X54 S |
| 1333 | | MLCA | AFIELDX4,8FIELDEX4 | 12 | 06457 | D 02X33 02X54 T |
| 1334 | | MLWA | AFIELDX4,8FIELDEX4 | 12 | 06469 | D 02X33 02X54 U |
| 1335 | | MLNWA | AFIELDX4,8FIELDEX4 | 12 | 06481 | D 02X33 02X54 V |
| 1336 | | MLCWA | AFIELDX4,8FIELDEX4 | 12 | 06493 | D 02X33 02X54 X |
| 1337 | | MLNB | AFIELDX4,8FIELDEX4 | 12 | 06505 | D 02X33 02X54 J |
| 1338 | | MLZB | AFIELDX4,8FIELDEX4 | 12 | 06517 | D 02X33 02X54 K |
| 1339 | | MLCB | AFIELDX4,8FIELDEX4 | 12 | 06529 | D 02X33 02X54 L |
| 1340 | | MLWB | AFIELDX4,8FIELDEX4 | 12 | 06541 | D 02X33 02X54 M |
| 1341 | | MLCWB | AFIELDX4,8FIELDEX4 | 12 | 06553 | D 02X33 02X54 P |
| 1342\$ | | MLZWA | AFIELDX4,8FIELDEX4 | 12 | 06565 | D 02X33 02X54 W |
| 1343 | | SCNLB | AFIELDX4,8FIELDEX4 | 12 | 06577 | D 02X33 02X54 - |
| 1344 | | MLNWB | AFIELDX4,8FIELDEX4 | 12 | 06589 | D 02X33 02X54 N |
| 1345\$ | | MLZWB | AFIELDX4,8FIELDEX4 | 12 | 06601 | D 02X33 02X54 O |
| 1346 | | SCNL | AFIELDX4,8FIELDEX4 | 12 | 06613 | D 02X33 02X54 E |
| 1347 | | MLN | AFIELDX4,8FIELDEX4 | 12 | 06625 | D 02X33 02X54 A |
| 1348 | | MLZ | AFIELDX4,8FIELDEX4 | 12 | 06637 | D 02X33 02X54 B |
| 1349 | | MLC | AFIELDX4,8FIELDEX4 | 12 | 06649 | D 02X33 02X54 C |
| 1350 | | MLW | AFIELDX4,8FIELDEX4 | 12 | 06661 | D 02X33 02X54 D |
| 1351\$ | | MLNW | AFIELDX4,8FIELDEX4 | 12 | 06673 | D 02X33 02X54 E |
| 1352 | | MLZW | AFIELDX4,8FIELDEX4 | 12 | 06685 | D 02X33 02X54 F |
| 1353 | | MLCW | AFIELDX4,8FIELDEX4 | 12 | 06697 | D 02X33 02X54 G |
| 1354 | | SCNR | AFIELD-19EX4,8FIELD-19EX4 | 12 | 06709 | D 02X14 02X35 8 |
| 1355 | | MRN | AFIELD-19EX4,8FIELD-19EX4 | 12 | 06721 | D 02X14 02X35 9 |
| 1356 | | MRZ | AFIELD-19EX4,8FIELD-19EX4 | 12 | 06733 | D 02X14 02X35 0 |
| 1357 | | MRC | AFIELD-19EX4,8FIELD-19EX4 | 12 | 06745 | D 02X14 02X35 # |
| 1358 | | MRW | AFIELD-19EX4,8FIELD-19EX4 | 12 | 06757 | D 02X14 02X35 a |
| 1359 | | MRNW | AFIELD-19EX4,8FIELD-19EX4 | 12 | 06769 | D 02X14 02X35 . |
| 1360 | | MRZW | AFIELD-19EX4,8FIELD-19EX4 | 12 | 06781 | D 02X14 02X35 G |
| 1361 | | MRCW | AFIELD-19EX4,8FIELD-19EX4 | 12 | 06793 | D 02X14 02X35 T |

TABLE 2 CONT

SUPER SCRAMBLE 141C

| PGLIN | LABEL | OPC00 | OPERAND | CT | ADDRS | INSTRUCTION |
|-------|--------|-------|---------------------------|----|-------|-----------------|
| 1362 | | SCNRR | AFIELD-19EX4,8FIELD-19EX4 | 12 | 06805 | D 02X14 02X35 Y |
| 1363 | | PNRR | AFIELD-19EX4,8FIELD-19EX4 | 12 | 06817 | D 02X14 02X35 Z |
| 1364 | | MRZR | AFIELD-19EX4,8FIELD-19EX4 | 12 | 06829 | D 02X14 02X35 * |
| 1365 | | MRZR | AFIELD-19EX4,8FIELD-19EX4 | 12 | 06841 | D 02X14 02X35 * |
| 1366 | | MRWR | AFIELD-19EX4,8FIELD-19EX4 | 12 | 06853 | D 02X14 02X35 * |
| 1367 | | MRNWR | AFIELD-19EX4,8FIELD-19EX4 | 12 | 06865 | D 02X14 02X35 * |
| 1368 | | MRZWR | AFIELD-19EX4,8FIELD-19EX4 | 12 | 06877 | D 02X14 02X35 * |
| 1369 | | MRCWR | AFIELD-19EX4,8FIELD-19EX4 | 12 | 06889 | D 02X14 02X35 M |
| 1370 | | SCNRG | AFIELD-19EX4,8FIELD-19EX4 | 12 | 06901 | D 02X14 02X35 Q |
| 1371 | | MRNG | AFIELD-19EX4,8FIELD-19EX4 | 12 | 06913 | D 02X14 02X35 R |
| 1372 | | MRZG | AFIELD-19EX4,8FIELD-19EX4 | 12 | 06925 | D 02X14 02X35 * |
| 1373 | | MRCG | AFIELD-19EX4,8FIELD-19EX4 | 12 | 06937 | D 02X14 02X35 * |
| 1374 | | MRWG | AFIELD-19EX4,8FIELD-19EX4 | 12 | 06949 | D 02X14 02X35 * |
| 1375 | | MRNWG | AFIELD-19EX4,8FIELD-19EX4 | 12 | 06961 | D 02X14 02X35 * |
| 1376 | | MRZWG | AFIELD-19EX4,8FIELD-19EX4 | 12 | 06973 | D 02X14 02X35 * |
| 1377 | | MRCWG | AFIELD-19EX4,8FIELD-19EX4 | 12 | 06985 | D 02X14 02X35 L |
| 1378 | | SCNRM | AFIELD-19EX4,8FIELD-19EX4 | 12 | 06997 | D 02X14 02X35 H |
| 1379 | | MRNM | AFIELD-19EX4,8FIELD-19EX4 | 12 | 07009 | D 02X14 02X35 I |
| 1380 | | MRZM | AFIELD-19EX4,8FIELD-19EX4 | 12 | 07021 | D 02X14 02X35 M |
| 1381 | | MRCM | AFIELD-19EX4,8FIELD-19EX4 | 12 | 07033 | D 02X14 02X35 * |
| 1382 | | MRWM | AFIELD-19EX4,8FIELD-19EX4 | 12 | 07045 | D 02X14 02X35 * |
| 1383 | | MRNWM | AFIELD-19EX4,8FIELD-19EX4 | 12 | 07057 | D 02X14 02X35 * |
| 1384 | | MRZWM | AFIELD-19EX4,8FIELD-19EX4 | 12 | 07069 | D 02X14 02X35 * |
| 1385 | | MRCWM | AFIELD-19EX4,8FIELD-19EX4 | 12 | 07081 | D 02X14 02X35 M |
| 1386 | | LL | AFIELD-19EX4,8FIELD-19EX4 | 12 | 07093 | T 02X33 02X53 1 |
| 1387 | | LE | AFIELD-19EX4,8FIELD-19EX4 | 12 | 07105 | T 02X33 02X53 2 |
| 1388 | | LLE | AFIELD-19EX4,8FIELD-19EX4 | 12 | 07117 | T 02X33 02X53 3 |
| 1389 | | LH | AFIELD-19EX4,8FIELD-19EX4 | 12 | 07129 | T 02X33 02X53 4 |
| 1390 | | LLH | AFIELD-19EX4,8FIELD-19EX4 | 12 | 07141 | T 02X33 02X53 5 |
| 1391 | | LEH | AFIELD-19EX4,8FIELD-19EX4 | 12 | 07153 | T 02X33 02X53 6 |
| 1392 | | MCS | AFIELD-19EX4,8FIELD-19EX4 | 11 | 07165 | Z 02X33 02X54 |
| 1393 | | MCE | AFIELD-19EX4,8FIELD-19EX4 | 11 | 07176 | E 02X33 02X54 |
| 1394 | | BC9 | 1825EX4 | 7 | 07187 | J 01Y25 9 |
| 1395 | MSGE | DC | END OF JOB 6 PASSESA,G | 20 | 07194 | |
| 1396 | ZEROES | DCW | EOC000 | 5 | 07219 | |
| 1397 | TABCCN | DCW | EO2322 | 5 | 07224 | |

SUPER SCRAMBLE 141C

CT ADDR INSTRUCTION

PGLIN LABEL

CPCOD OPERAND

| PGLIN | LABEL | CPCOD | OPERAND | CT | ADDR | INSTRUCTION |
|-------|---------|-------|--------------------------|----|-------|---------------|
| 1358 | | CRG | 1788 | | 01788 | |
| 1359 | WA | DA | 1X31,*G | | 01788 | |
| 1400 | | CRG | 2700 | | 02700 | |
| 1401 | BRANCH | CCW | 2JC125 a | 7 | 02706 | |
| 1402 | PRRST | CCW | 2JC8000 a | 7 | 02713 | |
| 1403 | AFIELD | CCW | a | 20 | 02733 | |
| 1404 | BFIELD | CCW | a | 20 | 02754 | |
| 1405 | ALOAD | CCW | 2123 4 5 6 7 8 9 012*a,G | 20 | 02756 | |
| 1406 | 8LOAD | CCW | 212345 | 20 | 02777 | |
| 1407 | ABEFCRE | CCW | a | 20 | 02817 | |
| 1408 | B8EFCRE | CCW | a | 20 | 02838 | |
| 1409 | POS | DC | 2a2a | 1 | 02840 | |
| 1410 | NEG | DC | 2-a | 1 | 02841 | |
| 1411 | SPEC | DC | 2 a | 1 | 02842 | |
| 1412 | BLANK | DC | a | 18 | 02843 | |
| 1413 | SIX | CCW | a CCG062 | 6 | 02867 | |
| 1414 | CNE | CCW | a C00012 | 6 | 02873 | |
| 1415 | | CRG | 80C0 | | 08000 | |
| 1416 | | WCP | HDR1 | 10 | 08000 | M 2T0 08247 W |
| 1417 | | 8CB1 | *-16 | 7 | 08010 | R 08000 2 G |
| 1418 | | 8A1 | *E1 | 7 | 08017 | R 08024 M |
| 1419 | | WCP | A8EFCR-19 | 10 | 08024 | M 2T0 02798 W |
| 1420 | | 8CB1 | *-16 | 7 | 08034 | R 08024 2 G |
| 1421 | | 8A1 | *E1 | 7 | 08041 | R 08048 M |
| 1422 | | WCP | HDR2 | 10 | 08048 | M 2T0 08255 W |
| 1423 | | 8CB1 | *-16 | 7 | 08058 | R 08048 2 G |
| 1424 | | 8A1 | *E1 | 7 | 08065 | R 08072 M |
| 1425 | | WCP | B8EFCR-19 | 10 | 08072 | M 2T0 02819 W |
| 1426 | | 8CB1 | *-16 | 7 | 08082 | R 08072 2 G |
| 1427 | | 8A1 | *E1 | 7 | 08089 | R 08096 M |
| 1428 | | WCP | HDR3 | 10 | 08096 | M 2T0 08263 W |
| 1429 | | 8CB1 | *-16 | 7 | 08106 | R 08096 2 G |
| 1430 | | 8A1 | *E1 | 7 | 08113 | R 08120 M |
| 1431 | | WCP | AFIELD-19 | 10 | 08120 | M 2T0 02714 W |
| 1432 | | 8CB1 | *-16 | 7 | 08130 | R 08120 2 G |
| 1433 | | 8A1 | *E1 | 7 | 08137 | R 08144 M |

| PGLIN | LABEL | OPCOD | OPERAND | CT | ADDRS | INSTRUCTION |
|--------|-------|-------|------------------|----|-------|---------------|
| 1434 | | WCP | HDR4 | 10 | 08144 | M ZTO 08271 W |
| 1435 | | BC81 | *-16 | 7 | 08154 | R 08144 2 |
| 1436 | | 8A1 | *E1 | 7 | 08161 | R 08168 M |
| 1437 | | WCP | BFIELD-19 | 10 | 08168 | M ZTO 02735 W |
| 1438 | | BC81 | *-16 | 7 | 08178 | R 08168 2 |
| 1439 | | 8A1 | *E1 | 7 | 08185 | R 08192 M |
| 1440 | | WCP | HDR5 | 10 | 08192 | M ZTO 08279 W |
| 1441 | | BC81 | *-16 | 7 | 08202 | R 08192 2 |
| 1442 | | 8A1 | *E1 | 7 | 08209 | R 08216 M |
| 1443 | | WCPW | WA | 10 | 08216 | L ZTO 01788 W |
| 1444 | | BC81 | *-16 | 7 | 08226 | R 08216 2 |
| 1445 | | 8A1 | *E1 | 7 | 08233 | R 08240 M |
| 1446\$ | | H | 1825 | 6 | 08240 | * 01825 |
| 1447\$ | | NCP | | 1 | 08246 | N |
| 1448 | HDR1 | CC | ZABEFOR 2.G | 7 | 08247 | |
| 1449 | HDR2 | CC | ZBEBFOR 2.G | 7 | 08255 | |
| 1450 | HDR3 | CC | ZAAFTER 2.G | 7 | 08263 | |
| 1451 | HDR4 | CC | ZBAFTER 2.G | 7 | 08271 | |
| 1452 | HDR5 | CC | ZINSTRUCTION 2.G | 12 | 08279 | |
| 1453\$ | | END | BEGIN | | | J02000 |
| 1453\$ | | | E06001 | 5 | 08296 | |
| 1453\$ | | | E03C00 | 5 | 08301 | |
| 1453\$ | | | E0C010 | 5 | 08306 | |
| 1453\$ | | | E01185 | 5 | 08311 | |
| 1453\$ | | | E0C005 | 5 | 08316 | |

END OF ASSEMBLY

